03050104-070

(Big Pine Tree Creek)

General Description

Watershed 03050104-070 is located in Kershaw County and consists primarily of *Big Pine Tree Creek* and its tributaries. The watershed occupies 41,885 acres of the Sandhills region of South Carolina. The predominant soil types consist of an association of the Lakeland-Wagram series. The erodibility of the soil (K) averages 0.10; the slope of the terrain averages 10%, with a range of 0-25%. Land use/land cover in the watershed includes: 65.5% forested land, 14.3% agricultural land, 10.5% urban land, 5.5% scrub/shrub land, 2.3% forested wetland, 1.8% water, and 0.1% barren land.

Big Pine Tree Creek flows through Llewellyn Millpond and accepts drainage from Beaverdam Branch, Thoroughfare Branch, Hyco Branch, and Berkeley Branch before flowing through Adams Mill Pond (160 acres) in N.R. Goodale State Park and Hermitage Mill Pond (600 acres). Thomas Branch drains into Hermitage Millpond, which is used for power generation, industry, water supply, and recreation. Downstream of Hermitage Mill Pond, Little Pine Tree Creek (Kendall Lake) joins Big Pine Tree Creek in the City of Camden and flows into the Wateree River. Kendall Lake (50 acres) is used for municipal and irrigational purposes for the City of Camden. There are a total of 66.0 stream miles and 549.2 acres of lake waters in this watershed, all classified FW.

Water Quality

Station #	Type	Class	Description
CW-223	S/BIO	FW	LITTLE PINE TREE CREEK AT S-28-132
CL-078	W	FW	ADAMS MILLPOND, FOREBAY EQUIDISTANT DAM TO SHORE
CW-021	W	FW	BIG PINE TREE CREEK AT US 521, NW BRIDGE

Big Pine Tree Creek (CW-021) - Aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are fully supported.

Little Pine Tree Creek (CW-223) - Aquatic life uses are fully supported based on macroinvertebrate community data; however there is a significantly increasing trend in turbidity. A significant decreasing trend in five-day biochemical oxygen demand concentration suggests improving conditions for this parameter. Recreational uses are fully supported.

Adams Mill Pond (CL-078) - Adams Mill Pond has a watershed covering 128.7 km², a surface area of 64.8 hectares, and a maximum and mean depth of 4.6m and 1.0m, respectively. The lake has been treated annually for seven years with aquatic herbicides in an attempt to control the growth of aquatic plants and provide access for boating and swimming. No further treatments were necessary after 1995. Aquatic life uses are fully supported. This is a blackwater system, characterized by naturally low pH conditions. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are fully supported.

Kendall Lake - The lake was treated with aquatic herbicides in 1994 and 1995 to control aquatic plants and reclaim recreational areas for swimming and boating. The plan included both chemical and biological treatments. The treatments were successful and no further applications were necessary.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM

FACILITY NAME

PERMITTED FLOW @ PIPE (MGD)

LIMITATION

COMMENT

BIG PINE TREE CREEK SC0002518

DEROYAL TEXTILES MAJOR INDUSTRIAL

PIPE #: 001 FLOW: 0.1354 EFFLUENT

LITTLE PINE TREE CREEK SCG250049

KENDALL CO./WATEREE PLT. MINOR INDUSTRIAL

PIPE #: 001,002 FLOW: M/R EFFLUENT

Nonpoint Source Management Program

Mining Activities

MINING COMPANY PERMIT #
MINE NAME MINERAL

PALMETTO BRICK COMPANY 0629-55 YOUNG MINE KAOLIN

PALMETTO BRICK COMPANY 0995-55 HINES MINE KAOLIN

Land Disposal Activities

Landfill Facilities

SOLID WASTE LANDFILL NAME PERMIT #
FACILITY TYPE STATUS

KERSHAW COUNTY LANDFILL 281001-1201 (DWP-016, DWP-042)

MUNICIPAL CLOSED

KERSHAW COUNTY LANDFILL 281001-1101 (DWP-035)

MUNICIPAL CLOSED

OLD KERSHAW LANDFILL (DUMP)

----- CLOSED

KENDALL PLANT LANDFILL IWP-202
INDUSTRIAL ------

FAIR STREET DUMP

-----CLOSED

Land Application Sites

LAND APPLICATION SYSTEM ND#
FACILITY NAME TYPE

SLUDGE APPLICATION ND0075272
DEROYAL TEXTILES WTP INDUSTRIAL

Growth Potential

There is a high potential for continued residential, commercial, and industrial development in this watershed, which contains a portion of the City of Camden. U.S. Hwy. 1 and U.S. Hwy. 521, together with I-20 provide the growth corridors. The interchange of I-20 and U.S. Hwy. 521 has a particularly high development potential. Sewer is provided to this area through a regional system located in Kershaw County.